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Load Balancing using Weight Based scheme in AWS

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Abstract: *This paper presents research on load balancing methods for cloud computing platforms. Load balancing is an important element of cloud systems since it allows for optimal resource utilization and consistent performance levels. The study investigates several load balancing technologies and evaluates their effectiveness in coping with the dynamic and heterogeneous nature of cloud workloads. The study conducts experiments and analyses to discover significant parameters influencing load balancing performance, such as workload allocation, server capacity, and network latency. With the weight-based technique, different servers are dynamically given requests based on their weights, which are determined by the processing capacities of the servers. By distributing the work proportionately, this approach aims to decrease user request response times and avoid server overload. This paper presents an optimized load distribution approach that raises the efficiency and stability of cloud computing systems. The findings enable to improve load balancing methods matched to the particular requirements and issues of cloud computing, eventually enhancing system scalability and reliability*

Keywords: AWS, Load balancing, Weight schemes

REFERENCES

[1]. Vijay R, Sree TR. Resource Scheduling and Load Balancing Algorithms in Cloud Computing. Procedia Computer Science. 2023 Jan 1;230:326-36.
[2]. Kaviarasan R, Balamurugan G, Kalaiyarasan R. Effective load balancing approach in cloud computing using Inspired Lion Optimization Algorithm. e-Prime-Advances in Electrical Engineering, Electronics and Energy. 2023 Dec 1;6:100326.
[3]. Mishra SK, Sahoo B, Parida PP. Load balancing in cloud computing: a big picture. Journal of King Saud University-Computer and Information Sciences. 2020 Feb 1;32(2):149-58.
[4]. Adaikalaraj JR, Chandrasekar C. To improve the performance on disk load balancing in a cloud environment using improved Lion optimization with min-max algorithm. Measurement: Sensors. 2023 Jun 14:100834.
[5]. Afzal S, Kavitha G. Load balancing in cloud computing–A hierarchical taxonomical classification. Journal of Cloud Computing. 2019 Dec 23;8(1):22.
[6]. Huang PC, Chin TL, Chuang TY. Server placement and task allocation for load balancing in edge-computing networks. IEEE Access. 2021 Oct 4;9:138200-8.
[7]. Shafiq DA, Jhanjhi NZ, Abdullah A, Alzain MA. A load balancing algorithm for the data centres to optimize cloud computing applications. IEEE Access. 2021 Mar 10;9:41731-44.
[8]. Moharir M, Shobha G, Oppiliappan A, GVL RM, Pandit SN, Akash R, Saxena M. A study and comparison of various types of load balancers. In2020 5th IEEE International Conference on Recent Advances and Innovations in Engineering (ICRAIE) 2020 Dec 1 (pp. 1-7). IEEE.
[9]. Ala'Anzy M, Othman M. Load balancing and server consolidation in cloud computing environments: a meta-study. IEEE Access. 2019 Sep 30;7:141868-87.
[10]. Jyoti A, Shrimali M, Mishra R. Cloud computing and load balancing in cloud computing-survey. In2019 9th International Conference on Cloud Computing, Data Science & Engineering (Confluence) 2019 Jan 10 (pp. 51-55). IEEE.

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[11]. Simjanoska M, Ristov S, Velkoski G, Gusev M. L3B: Low level load balancer in the cloud. InEurocon 2013 2013 Jul 1 (pp. 250-257). IEEE.

[12]. Wang Q, Liu D. Research on load balancing method in cloud computing. In2018 IEEE 3rd Advanced Information Technology, Electronic and Automation Control Conference (IAEAC) 2018 Oct 12 (pp. 1489-1493). IEEE.

[13]. Deepa T, Cheelu D. A comparative study of static and dynamic load balancing algorithms in cloud computing. In2017 International Conference on Energy, Communication, Data Analytics and Soft Computing (ICECDS) 2017 Aug 1 (pp. 3375-3378). IEEE.

[14]. Huang PC, Chin TL, Chuang TY. Server placement and task allocation for load balancing in edge-computing networks. IEEE Access. 2021 Oct 4;9:138200-8.